6650 Telecom Drive
Indianapolis, IN 46278

U.S. Customs and Border Protection

August 15, 2006

Refer to
ACC: KMH
06-1416

7005 1820 0001 4015 3250
VIA CERTIFIED MAIL, RETURN RECEIPT REQUESTED

Mr. Harry R. Steinmetz (3HS62)
U.S. Environmental Protection Agency, Region III
1650 Arch Street
Philadelphia, PA 19103-2029

Re: Supplemental Response to CERCLA Section 104(e) Information Request for Safety Light Corporation Site, Bloomsburg, Pennsylvania

Dear Mr. Steinmetz:

Enclosed is a **supplemental response** of the United States Customs and Border Protection ("CBP") to the above-referenced Information Request regarding its former laboratory located in Baltimore, Maryland ("CUSTOMS LAB"). Recently, CBP has learned of records that **might** be responsive to Questions 6 and 8 of your Information Request, which are enclosed as attachments 1-9 for your convenience. We note that the documents attached are copies of documents originating with the Nuclear Regulatory Commission (formerly the Atomic Energy Commission) and CBP has no way to verify the accuracy of the information therein. CBP learned of this information by visiting "nrc.gov" and searching the "Reading Room" section, known as "ADAMS." Our previously submitted written response to the above-referenced Information Request remains the same. Please contact Kristopher Huelsman, an attorney on my staff, at (317) 614-4424, should you have any questions concerning this response.

Sincerely,

Jeffrey S. Bloxsome
Assistant Chief Counsel

cc: Humane Zia (w/encl.)
Christopher Oh (w/encl.)
Ira Reese (w/encl.)
Luke McCormick (w/ encl.)

ATTACHMENT 1

L&R:IB:WEC (19-8654-1)

JUL 30 1962

U. S. Department of the Treasury
U. S. Customs Laboratory
103 South Gay Street
Baltimore 2, Maryland

Attention: Mr. Melvin Lerner

Gentlemen:

Transmitted herewith is Byproduct Material License No. 19-8654-1 issued in response to your application dated July 11, 1962.

You will notice that we have specified the gas chromatographic cell Models as BI-2S or BI-2SC on the basis of information supplied by Electronic Instruments for Research, Inc. If these are not the cell models which you desire to procure, it will be necessary for you to apply for amendment of this license, supported by detailed information regarding the design and construction of the cells desired.

Your attention is directed to Section 20.203, 10 CFR 20, regarding the labeling required for the gas chromatographic cells and devices containing byproduct material. Specifically, we note that the label must contain information as to the isotope and quantity present in the cell and/or device.

Very truly yours,

NYOO COMPLIANCE DIVISION

Robert E. Brinkman
Licensing Branch
Division of Licensing
and Regulation

RECEIVED

Enclosures:
1. Lic. #19-8654-1
2. 10 CFR, Parts 20 & 30
3. Form AEC-313, w/instr.

bcc: Compliance (Region II

L&R:IB	L&R:IB
Cool/lan	Brinkman
7/25/62	7/ /62

ATTACHMENT 2

TREASURY DEPARTMENT
BUREAU OF CUSTOMS
BALTIMORE, MD.

January 12, 1965

REFER TO

Mr. Cecil Buchanan
Isotopes Branch
Division of Materials Licensing
United States Atomic Energy Commission
Washington 21, D.C.

Dear Sir:

Request is made for an amendment to our current license 19-8654-1 (G-66) to possess a narrow band X-ray gold detector containing 100 millicuries of Xe-133 gas hermetically sealed into a stainless steel capsule. The capsule was tested for leakage at the time of manufacture and again before shipment -- a time interval of approximately 1 month to verify the fact the source was sealed.

This unit is a prototype device designed by TRACERLAB under contract from the Department of Isotope Development for evaluation by the U.S. Customs Laboratory. George Rotario of the Isotope Development Group is the project monitor.

The device is appropriately labeled with radioactive caution sign stating the quantity, isotope and date of measurement.

Radiation levels measured at the surface of the instrument when it contained 100 millicuries of Xe-133 were negligible. Radiation level measurements made at the source end at the most accessible area did not exceed 40 mr/ 1 hour. This represents the condition under which the instrument is actually operated - one foot away from the source end. The radiation level is less than 4 mr/ 1 hour. With the protective shield supplied with the instrument in place over the source the radiation level is negligible.

In actual operation this shield is removed. As the Xe-133 decays, additional thin lead absorbers are removed to maintain proper operating level.

Full operating instructions are supplied with the instrument by TRACERLAB and are enclosed herewith.

Thank you for your prompt attention.

Sincerely yours,

Melvin Lerner
Chief Chemist

Enclosure

Form AEC-313 (5-[illegible])

ATOMIC ENERGY COMMISSION

APPLICATION FOR BYPRODUCT MATERIAL LICENSE

Form approved.
Budget Bureau No. 38-R027.4.

INSTRUCTIONS.—Complete Items 1 through 16 if this is an initial application. If application is for renewal of a license, complete only Items 1 through 7 and indicate new information or changes in the program as requested in Items 8 through 15. Use supplemental sheets where necessary. Item 16 must be completed on all applications. Mail three copies to: U. S. Atomic Energy Commission, Washington 25, D. C. Attention: Isotopes Branch, Division of Licensing and Regulation. Upon approval of this application, the applicant will receive an AEC Byproduct Material License. An AEC Byproduct Material License is issued in accordance with the general requirements contained in Title 10, Code of Federal Regulations, Part 30 and the Licensee is subject to Title 10, Code of Federal Regulations, Part 20.

1. (a) NAME AND STREET ADDRESS OF APPLICANT. *(Institution, firm, hospital, person, etc.)*

U.S. Customs Laboratory
103 S. Gay Street - Room 704
Baltimore, Md. 21202

(b) STREET ADDRESS(ES) AT WHICH BYPRODUCT MATERIAL WILL BE USED. *(If different from 1 (a).)*

2. DEPARTMENT TO USE BYPRODUCT MATERIAL

Chief Chemist, U.S. Customs Lab.
103 S. Gay Street - Room 704
Baltimore, Md. 21202

3. PREVIOUS LICENSE NUMBER(S). *(If this is an application for renewal of a license, please indicate and give number.)*

19-0634-1 (6 66)

4. INDIVIDUAL USER(S). *(Name and title of individual(s) who will use or directly supervise use of byproduct material. Give training and experience in Items 8 and 9.)*

Melvin Lerner, Chief Chemist

5. RADIATION PROTECTION OFFICER *(Name of person designated as radiation protection officer if other than individual user. Attach resume of his training and experience as in Items 8 and 9.)*

Melvin Lerner

6. (a) BYPRODUCT MATERIAL. *(Elements and mass number of each.)*

Xenon-133

(b) CHEMICAL AND/OR PHYSICAL FORM AND MAXIMUM NUMBER OF MILLICURIES OF EACH CHEMICAL AND/OR PHYSICAL FORM THAT YOU WILL POSSESS AT ANY ONE TIME. *(If sealed source(s), also state name of manufacturer, model number, number of sources and maximum activity per source.)*

Xenon-133 gaseous form - 100 millicuries sealed in stainless steel capsule.

7. DESCRIBE PURPOSE FOR WHICH BYPRODUCT MATERIAL WILL BE USED. *(If byproduct material is for "human use," supplement A (Form AEC-313a) must be completed in lieu of this item. If byproduct material is in the form of a sealed source, include the make and model number of the storage container and/or device in which the source will be stored and/or used.)*

Used as activating source in narrow band X-ray gold detector.

05102

(Continued on reverse side)

Form AEC-313 (5-58) Page Two

TRAINING AND EXPERIENCE OF EACH INDIVIDUAL NAMED IN ITEM 4 *(Use supplemental sheets if necessary)*

8. TYPE OF TRAINING	WHERE TRAINED	DURATION OF TRAINING	ON THE JOB (Circle answer)	FORMAL COURSE (Circle answer)
a. Principles and practices of radiation protection	U.S. Customs Laboratory	4 yrs.	(Yes) No	Yes No
b. Radioactivity measurement standardization and monitoring techniques and instruments	U.S. Customs Laboratory	4 yrs.	(Yes) No	Yes No
c. Mathematics and calculations basic to the use and measurement of radioactivity	U.S. Customs Laboratory	4 yrs.	(Yes) No	Yes No
d. Biological effects of radiation	U.S. Customs Laboratory	4 yrs.	(Yes) No	Yes No

9. EXPERIENCE WITH RADIATION. *(Actual use of radioisotopes or equivalent experience.)*

ISOTOPE	MAXIMUM AMOUNT	WHERE EXPERIENCE WAS GAINED	DURATION OF EXPERIENCE	TYPE OF USE
Recent experience with exempt quantities of the following radioactive sources: Cobalt 60; Polonium 210; Carbon 14. Four years' experience in the use of equipment for monitoring uranium and thorium ores. On-the-job study of radiation practices and principles.				

10. RADIATION DETECTION INSTRUMENTS. *(Use supplemental sheets if necessary.)*

TYPE OF INSTRUMENTS (Include make and model number of each)	NUMBER AVAILABLE	RADIATION DETECTED	SENSITIVITY RANGE (mr/hr)	WINDOW THICKNESS (mg/cm²)	USE (Monitoring, surveying, measuring)
MARK II	1	C L A S S I F I E D			
Navy Radiac 27E	1	beta and gamma	Navy Types .01-500	BS1 & BS2	Monitoring
NMC Scaler	1	beta & gamma	.01-500	3-4	Measuring

11. METHOD, FREQUENCY, AND STANDARDS USED IN CALIBRATING INSTRUMENTS LISTED ABOVE.
Calibrated by Naval Research Lab. once a year; Radioactive Test Sample NK-1083B available.

12. FILM BADGES, DOSIMETERS, AND BIO-ASSAY PROCEDURES USED. *(For film badges, specify method of calibrating and processing, or name of supplier.)*
NONE

INFORMATION TO BE SUBMITTED ON ADDITIONAL SHEETS

13. FACILITIES AND EQUIPMENT. Describe laboratory facilities and remote handling equipment, storage containers, shielding, fume hoods, etc. Explanatory sketch of facility attached. (Circle answer) (Yes) No Fume hoods

14. RADIATION PROTECTION PROGRAM. Describe the radiation protection program including control measures. If application covers sealed sources, submit leak testing procedures where applicable, name, training, and experience of person to perform leak tests, and arrangements for performing initial radiation survey, servicing, maintenance and repair of the source. Initial leak tests and radiation survey to be made by installing company.

15. WASTE DISPOSAL. If a commercial waste disposal service is employed, specify name of company. Otherwise, submit detailed description of methods which will be used for disposing of radioactive wastes and estimates of the type and amount of activity involved.

CERTIFICATE (This item must be completed by applicant)

16. THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATE ON BEHALF OF THE APPLICANT NAMED IN ITEM 1, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PART 30, AND THAT ALL INFORMATION CONTAINED HEREIN, INCLUDING ANY SUPPLEMENTS ATTACHED HERETO, IS TRUE AND CORRECT TO THE BEST OF OUR KNOWLEDGE AND BELIEF.

The Treasury Department
U.S. Customs Laboratory
Applicant named in item 1

Date January 12, 1965 By: Melvin Lerner

Melvin Lerner
Chief Chemist
Title of certifying official

WARNING.—18 U. S. C., Section 1001; Act of June 25, 1948, 62 Stat. 749; makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

U.S. GOVERNMENT PRINTING OFFICE : 1961 O—615963

INSTRUCTIONS FOR USE OF THE TRACERLAB NARROW BAND X-RAY GOLD DETECTOR

1. Turn instrument on by use of the On-Off switch.

2. With standard in sample position, position range switch so that meter reading is on scale.

3. Adjust Tune for Max. control for maximum reading.

4. With Supp and Range Vernier controls full clockwise, the meter reading should be above half scale with Range Switch at 100 position. If it is not, remove a sufficient number of lead source filters (see Half-Life compensation below) to make it so. The removal of one lead foil will increase the meter reading approximately 1.4 times.

5. The amount of gold on the surface of a sample may be compared to that on a standard by normalizing the meter reading obtained from the standard. Meter readings from samples will then be directly in percentages. The meter readings may be normalized by setting the meter needle at full scale with the Range Vernier. It may be necessary to adjust the Range control to do this.

6. The detection of very small amounts of gold on the surfaces of samples may be done as follows: With the Range switch on the lowest position which allows on-scale readings with the sample holder in position, adjust the Z Supp control to set the meter at 20 or at the point where the audio oscillator regiency starts to increase with increasing meter readings. Now, with the sample in the measuring position a sizable increase in counting rate is a good indication of the presence of gold.

7. If the count rate increases only slightly it is possible that the mass of the object is causing increased scatter. This can be compensated for by substituting another article as much like the sample as possible, but without a gold content. The instrument should be set at 20 as previously discussed with the dummy sample, then the original one should be remeasured. An unambiguous increase in counting rate now is a good indication of the presence of gold.

8. After operation for 10 to 12 hours, or when the meter needle falls below 80% when either battery test button is depressed, the instrument should be recharged for about 16 hours.

MAR 12 1965

Half Life Compensation

1. Since the 5 day half life of Xe-133 would cause a rapid diminution in source strength without compensation, a method has been devised for this compensation. When new, the source is far stronger than needed, but this strength, or activity, is reduced by a number of thin lead foils placed in front of the source. These are removed one by one as the source diminishes in strength, with a probable frequency of two every five days. The following instructions describe the method for removing the lead foils.

2. Arrange the lead glass supplied with the instrument so you must look through it to see the source. Leave enough room to work on the source.

3. Take the trunk plier and carefully remove the snapring on the front of the source. Be careful not to apply pressure to the lead foils under the ring.

4. With a sharp, pointed implement such as a sharp lead pencil, a dissecting needle or a scribe, carefully work up the edge of the outer foil at the open slot at one side of the source.

5. When you are sure that only one foil has been loosened, remove it with a pair of tweezers.

6. After the necessary number of foils have been removed, replace the snap ring, using the same care as in removal. The ring need not be tight against the remaining foils, but may be as much as 1/16 inch away.

7. During this procedure, work carefully but do not waste time. The level of activity at the measuring plane is low - 40 mr. per hour -- but unnecessary exposure of the hands is to be avoided.

APR 1993

REPLACEMENT OF SOURCE

1. When the source decays below the point of usefulness (meter reading below full scale on the Range 10 position with the gold standard), a new source is required.

2. A replacement source from Tracerlab is shipped in its lead hat, or container, with a full complement of lead foils installed. It is not necessary to look at the face of the source, so the lead glass is not needed.

3. To replace the source, remove the bottom ring from the Detector by loosening the four allen-lead screws around the side. The ring may now be removed with the bottom shield in place. Be careful that the lining does not slide out of the Detector tubing.

4. Remove the three screws holding the lead hat in position. Remove the lead hat.

5. Remove the lead cover from the face of the new hat and place it in the same position occupied by the old one. Replace the three screws and tighten.

6. Place the lead cover over the face of the old hat and return it to Tracerlab.

7. Replace the ring on the gold detector and tighten the four allen set screws.

ATTACHMENT 3

TREASURY DEPARTMENT
BUREAU OF CUSTOMS
BALTIMORE, MD.

January 10, 1966

REFER TO

Mr. Cecil Buchanan
Isotopes Branch
Division of Materials Licensing
United States Atomic Energy Commission
Washington, D.C. 20545

Dear Sir:

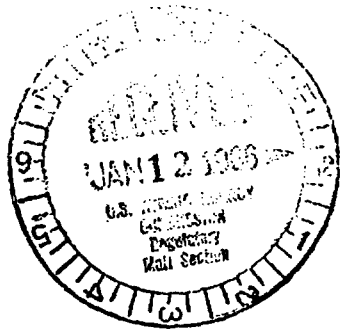
Request is made for an amendment to our current license 19-8654-1 (G-66) permitting us to obtain one millicurie of Yr 90 and one millicurie of strontium 90.

These elements would be used in cooperation with Oak Ridge National Laboratory to determine their effectiveness as markers (in diluted form) in tracing suspected packages which are under Customs jurisdiction.

Sincerely yours,

Melvin Lerner

Melvin Lerner
Chief Chemist



REPLY TO: THE CHIEF CHEMIST, U.S. CUSTOMS LABORATORY, 103 S. GAY STREET, BALTIMORE, MARYLAND, 21202

ATTACHMENT 4

UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

IN REPLY REFER TO:
DML:IB: REB (19-8634-1)

April 8, 1966

U.S. Department of the Treasury
U.S. Customs Laboratory
103 S. Gay Street
Baltimore, Maryland 21202

Attention: Mr. Melvin Lerner
Chief Chemist

SUBJECT: APPLICATION FOR BYPRODUCT MATERIAL LICENSE DATED January 10, 1966, AND OUR REQUEST FOR INFORMATION DATED January 28, 1966

This concerns the subject application for a byproduct material license and our letter in which we notified you that the application was deficient and that certain additional information was required.

You are hereby notified that unless within thirty (30) days from the date of this notice we receive the additional information requested we will consider your application as having been abandoned by you. This action is without prejudice to the resubmission of an application.

Sincerely yours,

Richard E. Cunningham

Richard E. Cunningham
Chief, Isotopes Branch
Division of Materials
Licensing

ATTACHMENT 5

TREASURY DEPARTMENT
BUREAU OF CUSTOMS
BALTIMORE, MD.

June 23, 1966

REFER TO

Mr. Richard E. Cunningham
Chief, Isotopes Branch
Division of Materials Licensing
Atomic Energy Commission
Washington, D.C. 20545

Dear Mr. Cunningham:

Enclosed is application for renewal of Byproduct Material (Radioisotopes) License No. 19-8654-1 (G66), in accordance with your letter of June 1, 1966 (DML:IB:37).

Sincerely yours,

Melvin Lerner
Chief Chemist

Enclosure
(duplicate)

REPLY TO: THE CHIEF CHEMIST, U.S. CUSTOMS LABORATORY, 103 S. GAY STREET, BALTIMORE, MARYLAND, 21202

Form AEC-313
10 CFR 30

UNITED STATES ATOMIC ENERGY COMMISSION

APPLICATION FOR BYPRODUCT MATERIAL LICENSE

Form approved.
Budget Bureau No. 38-R027

INSTRUCTIONS.—Complete Items 1 through 16 if this is an initial application or an application for renewal of a license. Information contained in previous applications filed with the Commisson with respect to Items 8 through 15 may be incorporated by reference provided references are clear and specific. Use supplemental sheets where necessary. Item 16 must be completed on all applications. Mail two copies to: U.S. Atomic Energy Commission, Washington, D.C., 20545, Attention: Isotopes Branch, Division of Materials Licensing. Upon approval of this application, the applicant will receive an AEC Byproduct Material License. An AEC Byproduct Material License is issued in accordance with the general requirements contained in Title 10, Code of Federal Regulations, Part 30, and the Licensee is subject to Title 10, Code of Federal Regulations, Part 20.

1. (a) NAME AND STREET ADDRESS OF APPLICANT. *(Institution, firm, hospital, person, etc. Include ZIP Code.)*

The Treasury Department
U.S. Customs Laboratory
103 S. Gay Street - Room 704
Baltimore, Md. 21202

(b) STREET ADDRESS(ES) AT WHICH BYPRODUCT MATERIAL WILL BE USED *(If different from 1 (a). Include ZIP Code.)*

2. DESIGNATION OF USE BYPRODUCT MATERIAL

Chief Chemist, U.S. Customs Lab.
103 S. Gay Street - Room 704
Baltimore, Md. 21202

3. PREVIOUS LICENSE NUMBER(S). *(If this is an application for renewal of a license, please indicate and give number.)*

19-8654-1 (G66)

4. INDIVIDUAL USER(S). *(Name and title of individual(s) who will use or directly supervise use of byproduct material. Give training and experience in Items 8 and 9.)*

Melvin Lerner, Chief Chemist

5. RADIATION PROTECTION OFFICER *(Name of person designated as radiation protection officer if other than individual user. Attach resume of his training and experience as in Items 8 and 9.)*

Melvin Lerner, Chief Chemist

6. (a) BYPRODUCT MATERIAL. *(Elements and mass number of each.)*

A. Strontium 90

B. Xenon 133

(b) CHEMICAL AND/OR PHYSICAL FORM AND MAXIMUM NUMBER OF MILLICURIES OF EACH CHEMICAL AND/OR PHYSICAL FORM THAT YOU WILL POSSESS AT ANY ONE TIME. *(If sealed source(s), also state name of manufacturer, model number, number of sources and maximum activity per source.)*

A. Sealed sources, not to exceed 3 in number. U.S. Radium Cat. # Lab. 369 containing 24 millicuries of Sr^{90}.

B. Sealed source (Tracerlab) - 100 millicuries

7. DESCRIBE PURPOSE FOR WHICH BYPRODUCT MATERIAL WILL BE USED. *(If byproduct material is for "human use," supplement A (Form AEC-313a) must be completed in lieu of this item. If byproduct material is in the form of a sealed source, include the make and model number of the storage container and/or device in which the source will be stored and/or used.)*

A. Gas chromatography unit - Electronic Instruments for Research, Inc. AU-18-2000.

B. To be used in the evaluation of a narrow band x-ray gold detector.

78431

(Continued on reverse side)

TRAINING AND EXPERIENCE OF EACH INDIVIDUAL NAMED IN ITEM 4 *(Use supplemental sheets if necessary)*

8. TYPE OF TRAINING	WHERE TRAINED	DURATION OF TRAINING	ON THE JOB (Circle answer)	FORMAL COURSE (Circle answer)
a. Principles and practices of radiation protection	U.S. Customs Laboratory	6 yrs.	(Yes) No	Yes No
b. Radioactivity measurement standardization and monitoring techniques and instruments	U.S. Customs Laboratory	6 yrs.	(Yes) No	Yes No
c. Mathematics and calculations basic to the use and measurement of radioactivity	U.S. Customs Laboratory	6 yrs.	(Yes) No	Yes No
d. Biological effects of radiation	U.S. Customs Laboratory	6 yrs.	(Yes) No	Yes No

9. EXPERIENCE WITH RADIATION. *(Actual use of radioisotopes or equivalent experience.)*

ISOTOPE	MAXIMUM AMOUNT	WHERE EXPERIENCE WAS GAINED	DURATION OF EXPERIENCE	TYPE OF USE
Experience with exempt quantities of the following radioactive sources: Cobalt 60; Polonium 210; Carbon 14. Six years' experience in the use of equipment for monitoring uranium and thorium ores. On-the-job study of radiation practices and principles.				

10. RADIATION DETECTION INSTRUMENTS. *(Use supplemental sheets if necessary.)*

TYPE OF INSTRUMENTS (Include make and model number of each)	NUMBER AVAILABLE	RADIATION DETECTED	SENSITIVITY RANGE (mr/hr)	WINDOW THICKNESS (mg/cm²)	USE (Monitoring, surveying, measuring)
Mark II	1	CLASSIFIED			
Navy Radiac 27E	1	beta and gamma	.01-500	Navy types BS1 & BS2	Monitoring
NRL Scaler	1	beta and gamma	.01-500	3-4	Measuring

11. METHOD, FREQUENCY, AND STANDARDS USED IN CALIBRATING INSTRUMENTS LISTED ABOVE.
Calibrated by Naval Research Laboratory once a year; Radioactive Test Sample MX-1083B available.

12. FILM BADGES, DOSIMETERS, AND BIO-ASSAY PROCEDURES USED. *(For film badges, specify method of calibrating and processing, or name of supplier.)*
NONE

INFORMATION TO BE SUBMITTED ON ADDITIONAL SHEETS IN DUPLICATE

13. FACILITIES AND EQUIPMENT. Describe laboratory facilities and remote handling equipment, storage containers, shielding, fume hoods, etc. Explanatory sketch of facility is attached. *(Circle answer)* Yes No Fume hoods

14. RADIATION PROTECTION PROGRAM. Describe the radiation protection program including control measures. If application covers sealed sources, submit leak testing procedures where applicable, name, training, and experience of person to perform leak tests, and arrangements for performing initial radiation survey, servicing, maintenance and repair of the source. See attached sheet.

15. WASTE DISPOSAL. If a commercial waste disposal service is employed, specify name of company. Otherwise, submit detailed description of methods which will be used for disposing of radioactive wastes and estimates of the type and amount of activity involved.

CERTIFICATE (This item must be completed by applicant)

16. THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATE ON BEHALF OF THE APPLICANT NAMED IN ITEM 1, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PART 30, AND THAT ALL INFORMATION CONTAINED HEREIN, INCLUDING ANY SUPPLEMENTS ATTACHED HERETO, IS TRUE AND COMPLETE TO THE BEST OF OUR KNOWLEDGE AND BELIEF.

The Treasury Department
U.S. Customs Laboratory
Applicant named in item 1

Date June 23, 1966

Melvin Lerner, Chief Chemist

Title of certifying official

RECEIVED JUN 27 1966 U.S. ATOMIC ENERGY COMMISSION Division of Licensing and Regulation

WARNING—18 U. S. C., Section 1001; Act of June 25, 1948, 62 Stat. 749; makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

* U.S. GOVERNMENT PRINTING OFFICE : 1964 O—745-381

14. Shall be tested for leakage at no longer than six month intervals by Melvin Lerner, Chief Chemist, using NRD Scaler; source to be repaired, if necessary, by original supplier.

A "wipe" test will be made of the sealed source with filter paper and the paper will be counted with a thin window geiger tube and/or a windowless flow counter for several hours to detect any rise above background. The test will be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample.

78431

ATTACHMENT 6

FORM AEC-374C
(4-66)

U. S. ATOMIC ENERGY COMMISSION
BYPRODUCT MATERIAL LICENSE
Supplementary Sheet

License Number 19-08654-01

Amendment No. 04

U. S. Department of the Treasury
U. S. Customs Laboratory
103 S. Gay Street
Baltimore, Maryland 21202

In accordance with application dated June 3, 1968, License Number 19-08654-01 is amended as follows:

The expiration date in Item 4 is changed to July 31, 1973.

Subitems 6.B., 7.B., 8.B. and 9.B. are amended to read:

6. Byproduct material (element and mass number)	7. Chemical and/or physical form	8. Maximum amount of radioactivity which licensee may possess at any one time
B. Xenon 133	B. Sealed source (Oak Ridge National Laboratory)	B. 600 millicuries

9. Authorized use

B. To be used in a custom made device for detection of gold.

Condition 12. is amended to read:

12. Byproduct material shall be used by, or under the supervision of, Alvin Bober.

Date JUL 18 1968

For the U. S. Atomic Energy Commission
Original Signed By
Robert E. Brinkman
by Isotopes Branch
Division of Materials Licensing
Washington, D. C. 20545

ATTACHMENT 7

AEC-374
-60
TR 30

U. S. ATOMIC ENERGY COMMISSION
BYPRODUCT MATERIAL LICENSE

LICENSE NO. 19-05834-01

Amendment No. 03

Pursuant to the Atomic Energy Act of 1954 and Title 10, Code of Federal Regulations, Chapter 1, Parts 30, 32, 33, 34, and 35, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, own, possess, transfer and import byproduct material listed below; and to use such byproduct material for the purpose(s) and at the place(s) designated below. This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, and is subject to all applicable rules, regulations, and orders of the Atomic Energy Commission now or hereafter in effect and to any conditions specified below.

Licensee	
1. Name U. S. Department of the Treasury	In accordance with application dated June 22, 1966, 19-05834-01 is amended in its entirety to read as follows:
2. Address U. S. Customs Laboratory 103 S. Gay Street Baltimore, Maryland 21202	3. License number
	4. Expiration date July 31, 1968
	5. Reference No.

6. Byproduct material (element and mass number)	7. Chemical and/or physical form	8. Maximum amount of radioactivity which licensee may possess at any one time
A. Strontium 90	A. Sealed Sources (U. S. Radium LAB-300)	A. Not to exceed 20 millicuries per source
B. Xenon 133	B. Sealed Source (Tracerlab)	B. 100 millicuries

9. Authorized use

A. To be used in Electronics Instruments for Research, Inc., gas chromatography unit for sample analysis.
B. To be used in the evaluation of a narrow band X-ray gold detector.

CONDITIONS

10. Byproduct material may only be used at the licensee's address stated in Item 2 above.

11. The licensee shall comply with the provisions of Title 10, Part 20, Code of Federal Regulations, Chapter 1, "Standards for Protection Against Radiation."

12. Byproduct material shall be used by, or under the supervision of, Melvin Lerner.

Continued from Page 1 Amendment No. 23

CONDITIONS

13. A(1) Each sealed source containing byproduct material, other than Hydrogen 3, with a half-life greater than thirty days and in any form other than gas shall be tested for leakage and/or contamination at intervals not to exceed six months. In the absence of a certificate from a transferor indicating that a test has been made within six months prior to the transfer, the sealed source shall not be put into use until tested.

(2) The periodic leak test required by this condition does not apply to sealed sources that are stored and not being used. The sources exempted from this test shall be tested for leakage prior to any use or transfer to another person unless they have been leak tested within six months prior to the date of use or transfer.

B. The test shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample. The test sample shall be taken from the sealed source or from the surfaces of the device in which the sealed source is permanently mounted or stored on which one might expect contamination to accumulate. Records of leak test results shall be kept in units of microcuries and maintained for inspection by the Commission.

C. If the test reveals the presence of 0.005 microcurie or more of removable contamination, the licensee shall immediately withdraw the sealed source from use and shall cause it to be decontaminated and repaired or to be disposed of in accordance with Commission regulations. A report shall be filed within 5 days of the test with the Director, Division of Materials Licensing, U. S. Atomic Energy Commission, Washington, D. C. 20545, describing the equipment involved, the test results, and the corrective action taken. A copy of such report shall also be sent to the Director, Region I, Division of Compliance, USAEC, 376 Hudson Street, New York, New York, 10014.

D. Tests for leakage and/or contamination shall be performed by the licensee or by other persons specifically authorized by the Commission or an Agreement State to perform such services.

14. Except as specifically provided otherwise by this license, the licensee shall possess and use byproduct material described in Items 6, 7, and 8 of this license in accordance with statements, representations, and procedures contained in applications dated January 12, 1965 and June 23, 1966.

For the U. S. Atomic Energy Commission
Original Signed By
Robert E. Brinkman

Date JUL 6 1966

by Isotopes Branch
Division of Materials Licensing
Washington, D. C. 20545

ATTACHMENT 8

TREASURY DEPARTMENT
BUREAU OF CUSTOMS
BALTIMORE, MD.

JUN 5 1973
REFER TO

FILE:TEC-1-07-RO:L

United States
Atomic Energy Commission
Washington, D. C. 20545

Attn: Isotopes Branch, Division of Materials Licensing

Gentlemen:

Enclosed please find completed Form AEC-313, in duplicate, for the renewal of License No. 19-08654-01; expiration date July 31, 1973 (Program Code 03100).

Sincerely yours,

James M. Adams

James M. Adams, Ph.D.
Regional Director,
Laboratory Division

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REPLY TO: THE CHIEF CHEMIST, U.S. CUSTOMS LABORATORY, 103 S. GAY STREET, BALTIMORE, MARYLAND, 21202

Form AEC-313
5-64
10 CFR 30

UNITED STATES ATOMIC ENERGY COMMISSION

APPLICATION FOR BYPRODUCT MATERIAL LICENSE

Form approved
Budget Bureau No. 38-R0027

INSTRUCTIONS.—Complete Items 1 through 16 if this is an initial application or an application for renewal of a license. Information contained in previous applications filed with the Commisson with respect to Items 8 through 15 may be incorporated by reference provided references are clear and specific. Use supplemental sheets where necessary. Item 16 must be completed on all applications. Mail two copies to: U.S. Atomic Energy Commission, Washington, D.C., 20545, Attention: Isotopes Branch, Division of Materials Licensing. Upon approval of this application, the applicant will receive an AEC Byproduct Material License. An AEC Byproduct Material License is issued in accordance with the general requirements contained in *Title 10, Code of Federal Regulations, Part 30, and the Licensee is subject to Title 10, Code of Federal Regulations, Part 20.*

1. (a) NAME AND STREET ADDRESS OF APPLICANT. *(Institution, firm, hospital, person, etc. Include ZIP Code.)*

Treasury Department
U. S. Customs Laboratory
103 S. Gay Street
Baltimore, Maryland 21202

(b) STREET ADDRESS(ES) AT WHICH BYPRODUCT MATERIAL WILL BE USED *(If different from 1 (a). Include ZIP Code.)*

Not Applicable

2. DEPARTMENT TO USE BYPRODUCT MATERIAL

Laboratory Division
U.S. Customs Service, Region III
40 S. Gay St. Baltimore, Md.21202

3. PREVIOUS LICENSE NUMBER(S). *(If this is an application for renewal of a license, please indicate and give number.)*

Renewal: No.19-08654-01

4. INDIVIDUAL USER(S). *(Name and title of individual(s) who will use or directly supervise use of byproduct material. Give training and experience in Items 8 and 9.)*

Alvin Bober, Chief/Inorganic/
Physical Branch

5. RADIATION PROTECTION OFFICER *(Name of person designated as radiation protection officer if other than individual user. Attach resume of his training and experience as in Items 8 and 9.)*

James M. Adams, Regional Director,
Laboratory Division

6. (a) BYPRODUCT MATERIAL. *(Elements and mass number of each.)*

Various

(b) CHEMICAL AND/OR PHYSICAL FORM AND MAXIMUM NUMBER OF MILLICURIES OF EACH CHEMICAL AND/OR PHYSICAL FORM THAT YOU WILL POSSESS AT ANY ONE TIME. *(If sealed source(s), also state name of manufacturer, model number, number of sources and maximum activity per source.)*

Exempt quantities for use as tracers or in calibration.
Sealed sources not to exceed 1 in number, such as may be used in a gas chromatograph Example: U.S. Radium, Catalog No. 369, containing 24 millicuries of Sr 90.

7. DESCRIBE PURPOSE FOR WHICH BYPRODUCT MATERIAL WILL BE USED. *(If byproduct material is for "human use," supplement A (Form AEC-313a) must be completed in lieu of this item. If byproduct material is in the form of a sealed source, include the make and model number of the storage container and/or device in which the source will be stored and/or used.)*

1) Gas chromatograph detector, Example: Electronic Instruments for Research, Inc. AV-18-2000.
2) Analytical methodology for recovery correction

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(Continued on reverse side)

TRAINING AND EXPERIENCE OF EACH INDIVIDUAL NAMED IN ITEM 4 *(Use supplemental sheets if necessary)*

8. TYPE OF TRAINING	WHERE TRAINED	DURATION OF TRAINING	ON THE JOB (Circle answer)	FORMAL COURSE (Circle answer)
a. Principles and practices of radiation protection	U. S. Customs Laboratory	7 yrs.	Yes No	Yes No
b. Radioactivity measurement standardization and monitoring techniques and instruments	U.S. Customs Laboratory	7 yrs	Yes No	Yes No
c. Mathematics and calculations basic to the use and measurement of radioactivity	U.S. Customs Laboratory	7 yrs	Yes No	Yes No
d. Biological effects of radiation	U.S. Customs Laboratory	7 yrs	Yes No	Yes No

9. EXPERIENCE WITH RADIATION. *(Actual use of radioisotopes or equivalent experience.)*

ISOTOPE	MAXIMUM AMOUNT	WHERE EXPERIENCE WAS GAINED	DURATION OF EXPERIENCE	TYPE OF USE
235 U 35	?	U. S. Customs Laboratory	7 yrs	monitoring imported ores and depleted uranium hexafluoride

10. RADIATION DETECTION INSTRUMENTS *(Use supplemental sheets if necessary.)*

TYPE OF INSTRUMENTS *(Include make and model number of each)*	NUMBER AVAILABLE	RADIATION DETECTED	SENSITIVITY RANGE *(mr/hr)*	WINDOW THICKNESS *(mg/cm²)*	USE *(Monitoring, surveying, measuring)*
Navy Radiac 27X	1	beta, gamma	0.01-500	Navy BS1 and BS2	Monitoring
N R D Scaler	1	beta gamma	0.01-500	3-4	Measuring

11. METHOD, FREQUENCY, AND STANDARDS USED IN CALIBRATING INSTRUMENTS LISTED ABOVE.
Calibrated by Naval Research Laboratory, biannually.
Test Sample NX 1083B available

12. FILM BADGES, DOSIMETERS, AND BIO-ASSAY PROCEDURES USED. *(For film badges, specify method of calibrating and processing, or name of supplier.)*
Film Badges-Tracerlab, Inc., Waltham, Mass.

INFORMATION TO BE SUBMITTED ON ADDITIONAL SHEETS IN DUPLICATE

13. FACILITIES AND EQUIPMENT. Describe laboratory facilities and remote handling equipment, storage containers, shielding, fume hoods, etc. Explanatory sketch of facility is attached. *(Circle answer)* Yes (No) Fume hoods

14. RADIATION PROTECTION PROGRAM. Describe the radiation protection program including control measures. If application covers sealed sources, submit leak testing procedures where applicable, name, training, and experience of person to perform leak tests, and arrangements for performing initial radiation survey, servicing, maintenance and repair of the source.

15. WASTE DISPOSAL. If a commercial waste disposal service is employed, specify name of company. Otherwise, submit detailed description of methods which will be used for disposing of radioactive wastes and estimates of the type and amount of activity involved.

CERTIFICATE (This item must be completed by applicant)

16. THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATE ON BEHALF OF THE APPLICANT NAMED IN ITEM 1, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PART 30, AND THAT ALL INFORMATION CONTAINED HEREIN, INCLUDING ANY SUPPLEMENTS ATTACHED HERETO, IS TRUE AND CORRECT TO THE BEST OF OUR KNOWLEDGE AND BELIEF.

Treasury Department
U.S. Customs Laboratory
Applicant named in item 1

Date July 3, 1973

By: A. B.

Chief, Inorganic/Physical Branch
Title of certifying official

WARNING.—18 U. S. C., Section 1001; Act of June 25, 1948; 62 Stat. 749; makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

★ U. S. GOVERNMENT PRINTING OFFICE : 1971 O - 434 845

Form AEC-313 (8-64): Supplemental Sheet

5. James M. Adams, Regional Director, Laboratory Division

(8 Type of Training

	Where Trained	Duration	On the Job
a	Oak Ridge National Laboratory	3 yrs	Yes
b	Oak Ridge National Laboratory	3 yrs	yes
c	Oak Ridge National Laboratory	3 yrs	yes
d	Oak Ridge National Laboratory	3 yrs	yes

(9 Experience with Radiation

Isotope	Max.Amount	Where	Duration	Use
C^{14}	Exempt	Oak Ridge Natl. Lab.	3 yrs	Tracer
Co^{60}	Exempt	Rosner-Hixon Lab. Chicago, Ill	3 yrs	Tracer
C^{14}	Exempt	Merck & Co. Rahway, N.J.	4 yrs	Tracer

14. Continued

Sealed sources will be tested for leakage at 6 month intervals by Alvin Bober, Chief, Inorganic/Physical Branch. Servicing maintenance and repair when required will be referred to the original supplier.

A "wipe" test will be performed on the source using filter paper and the paper will be counted using a thin window geiger tube or windowless flow counter.

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ATTACHMENT 9

EXPERT SYSTEM LICENSE EVALUATION
EVALUATION REPORT FOR LICENSE 19-08654-01

Licensee: DEPARTMENT OF THE TREASURY CUSTOMS LAB
Site of operation: 103 GAY STREET, BALTIMORE, MD

--Type and form of materials licensed--

Material--	--Form--
SR-90	Sealed
XE-133	Sealed

--For evaluation purposes, amounts of the following materials were obtained-

Material--	--Form--	--Amount--	--Unit--
SR-90	SEALED	.060	CI

Initial rank for the SEALED sources is: 0.52

1. License included only sealed sources
2. There was at least one sealed source authorized on this license which was not accounted for by the disposition information.
3. Sealed sources/shielding on the license were of low to moderate hazard.

Category for sealed sources: No criteria to eliminate license-sources not haz

The final ranking for SEALED SOURCES is BELOW 1

Reviewer's comments concerning license 19-08654-01

THERE IS A NOTE IN THIS FILE DATED 7/10/73 STATING NO MATERIAL ON HAND AND THAT THERE IS NO NEED TO RENEW THE LICENSE. NOTICE WAS TO BE SENT TO CLOSE OUT. HOWEVER THE FILE CONTAINED NO DISPOSITION DATA. FROM INFORMATION ON THE APPLICATION FOR LICENSE THE LICENSEE COULD POSSESS SEALED SOURCES OF STRONTIUM-90, (ACTIVITY NOT TO EXCEED 20 MILLICURES PER SOURCE) NOT TO EXCEED 3 IN NUMBER. BASED ON THIS IT WAS ASSUMED THAT THE LICENSEE POSSESSED 3 SEALED SOURCES OF SR-90.

EXPERT SYSTEM EVALUATION WAS BASED ON THE
INVENTORY RECORD IN JOB 0338, BOX 41

Docket 30-04546

Licensee: DEPARTMENT OF THE TREASURY CUSTOMS LAB
Address: BALTIMORE, MD Zip: 21202
State of operation: MD
Site used: 103 GAY STREET, BALTIMORE, MD
Disposition information present: NO DISPOSITION INFORMATION GIVEN
This license was listed as expired on 07/31/73
Remarks:NOTE 7/10/73: NO MATL ON HAND- NO NEED FOR RENEWAL OF LICENSE
JOB NUMBER: 0338 BOX NUMBER: 41

Date of last evaluation/revision: 01/27/93 Reviewer: BWK

HARRY R. STEINMETZ (3HS62)
U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION III
1650 ARCH STREET
PHILADELPHIA, PA 19103-2029